

Claims:

1. A device for atomizing and granulating liquid oxidic slags such as, e.g., converter slags, blast furnace slags or waste incineration slags, including a slag tundish having an outlet opening into which a height-adjustable lance for a propellant jet opens and to which a cooling chamber is connected, said outlet opening being surrounded by an immersion tube arranged concentrically therewith while forming an annular gap, characterized in that a guide body (2) capable of being adjusted in the axial direction (3) of the lance (1) is arranged in the region of the nozzle mouth of the lance (1) for the propellant jet, which guide body deflects the propellant jet (15) in the radial direction.
2. A device according to claim 1, characterized in that coolant outlets (12) which are directed radially inwards are arranged concentric with the slag jet in the region of the outlet opening (8) or immediately following upon outlet opening (8).
3. A device according to claim 1 or 2, characterized in that the slag outlet opening (8) is designed as a torus-shaped ring (11) to whose annular cavity a coolant supply duct (13) and the radially inwardly directed coolant outlets (12) are connected.
4. A device according to claim 1, 2 or 3, characterized in that the propellant jet nozzle and/or the coolant outlets (12) are designed as Laval nozzles and the guide body (2) arranged in the propellant jet nozzle leaves a clear cross section relative to the nozzle mouth, which widens in the direction of ejection of the propellant jet.
5. A device according to any one of claims 1 to 4, characterized in that the pressure of the coolant is adjusted to be higher than the pressure of the propellant jet.

6. A device according to any one of claims 1 to 5, characterized in that a jet of combustion off-gases and vapor is used as said propellant jet.
- 5 7. A device according to any one of claims 1 to 6, characterized in that gaseous hydrocarbons are used as said coolant.
8. A device according to any one of claims 1 to 7,  
10 characterized in that the propellant medium and/or the coolant are fed to the nozzles (12) under supercritical pressure.
9. A device according to any one of claims 1 to 8,  
15 characterized in that the guide body (2), on its jacket defining the nozzle cross section, carries guide surfaces, in particular curved guide surfaces, having semi-radial or tangential courses.
10. A device according to any one of claims 1 to 9,  
20 characterized in that a magnetic separator is arranged within the cooling chamber (10) or following the cooling chamber (10).
11. A device according to any one of claims 1 to 10,  
25 characterized in that the nozzle mouth of the propellant jet lance (1) is arranged above the lower edge (7) of the immersion tube (6).

ADD A2

10070529-030603